REMARKS

This application was examined with claims 18, 20 through 28 and 30 through 32. Claims 18, 20, 21, 31 and 32 are amended. Claim 30 is canceled. Claim 33 is added. Claims 18, 20 through 28 and 31 through 33 remain in the case.

Applicant thanks the Examiner for his courtesy during a telephone interview on March 25, 2004. The foregoing remarks include the arguments for patentability made on Applicant's behalf.

Applicant requests reconsideration and reexamination of the above-identified application in view of the amendments made to the specification and claims. The following remarks state Applicant's bases for making this request and are organized according to the Examiner's Action by paragraph number.

Examiner's Action, Paragraph 1

The Examiner makes several objections to FIGS. 1c, 2b and 4. Applicant is submitting an Amendment to the Drawings that incorporates the Examiner's suggested changes.

Examiner's Action, Paragraph 2

The Examiner objects to certain areas of the specification. Specifically, the Examiner requests a brief description of FIG. 1c at Page 9, between lines 14 and 15 .

Applicant adds the requested language. However, Applicant believes this may be a redundant instruction in view of the amendment of May 28, 2003, page 4, lines 1 through 3. During the interview the Examiner seemed to agree.

The Examiner objects to language at pages 12, 13 and 18. Applicant has incorporated the Examiner's suggested changes to pages 12 and 18. Applicant believes that the language at page 13 should not be changed.

The Examiner suggests consideration of another substitute specification. Exhibit A is a substitute specification highlighting all the changes made to the specification since May 28, 2003. Exhibit B is a clean copy incorporating all the changes.

The Examiner raises specific objections to claims 18, 20 and 32 and suggests changes. Those changes have been incorporated in the amended claims.

Examiner's Action, Paragraph 3

The Examiner rejects claims 18, 20 through 28 and 30 through 32 under 35 U.S.C. 112 as being indefinite. The Examiner identifies specific areas of each of these claims and suggests certain corrective changes. The Examiner's changes have been incorporated in these claims.

10

Examiner's Action, Paragraphs 4 and 5

The Examiner rejects the claims under 35 U.S.C. 102(b) as being anticipated by the previously cited Willick reference and Korner reference. The Examiner argues that each reference "discloses a data network including interconnected data 'nodes' for transferring data therebetween, each data 'node' including a cache memory device connected to the data network, and a cache memory 'management system' or controller connected to a respective cache memory device for controlling that cache memory device". Examiner's Action, Page 7, lines 4-7.

Further, the Examiner argues that each of the cache memory managers is coupled to the data network to control the transfer of data using at least one of two cache memory management methods, such as simple LRU and MRU or other cache memory management methods. It is argued that methods at different sites may be different. The Examiner appears to argue that merely changing the parameters for a specific cache management method produces different methods. The Examiner further argues the systems may also monitor performance to make adjustments.

In response to Applicant's arguments filed on October 20, 2003, the Examiner states that Willick teaches that different algorithms can be used at different nodes in a network. The Examiner finds that Applicant's argument that claim 18 "defines a data node for use in a network in which replacement algorithm

can be switched at a global level" is not persuasive because there is no corresponding language in the claims. Further the Examiner considers that the references teach dynamically selecting or choosing which algorithm or strategy is to be used for different classes of blocks. The Examiner also expresses a concern that the claims as broadly written could read on data nodes or users of their home personal computers connected to the internet.

Applicant respectfully traverses this rejection.

Applicant has reviewed the Korner and Willick references in detail in previous responses. For purposes of this response it is important to point out that the Korner reference discloses a proposed intelligent algorithm that requires the cache to be

> "partitioned into several distinct areas... to hold directory information... for common use paths and frequently use blocks of popular system programs... Moreover, information is held in process partitions - one for each process on a remote host requesting service. Processed partitions are dynamically managed". (Korner, Page 223).

The nature of the file that is opened determines which cache management policy might be used. Only two cache management policies are incorporated, namely an LRU (Least Recently Used) and MRU (Most Recently Used). Another alternative is no disk caching. The discussion of experimental results shows

12

increases of performance over the LRU algorithm being dependent

upon cache sizes.

In analyzing the Korner reference, the Willick reference

states:

> "Korner [3] investigates an alternative cache
> management policy for distributed file servers. His
> algorithm chooses among different replacement
> strategies (LRU, MRU, or no caching) for different
> classes of blocks depending upon the anticipated
> reference patterns. Performance improvements of up
> to 340% were observed over that of LRU alone. This
> algorithm is not explicitly evaluated in this study.
> However, by evaluating the LRU algorithm, this paper
> demonstrates that, possibly, LRU should not be one of
> the three strategies that Korner's algorithm chooses
> from." Willick, Page 4.

The Willick reference also compares individual strategies

for several different policies. Of these only the LRU

reference as a disk cache replacement policy is discussed in

the patent. Each of the strategies in the Willick reference is

selected for optimizing performance within a disk storage

system and on a basis of a single client, single server

configuration.

Applicant believes that a person of ordinary skill in the

art would interpret both the Korner and Willick references as

disclosing, at most, a selection based upon certain parameters

such as cache size at both the client site and server site or

the assignment of a particular algorithm to a specific

partition. Claim 18, on the other hand, defines a cache

management system for use in a data node in the environment of

13

multiple data or network nodes. A data node incorporating this invention includes a cache memory device that stores a plurality of different cache memory management methods. Claim 18 attempts to emphasize the difference by stating that each method provides a different method by which communications occur between that data node and the network.

Claim 18 additionally defines a system whereby the cache memory manager selects one specific method by which each data node communicates over a data network. Applicant sees nothing in the Willick or Korner references that discloses this specific operation, particularly in a data network, other than in a single client, single server configuration. Applicant therefore believes that claim 18 does define a cache management system that is different from those discloses in either the Korner or Willick references. Applicant further believes the differences would not have been obvious to a person of ordinary skill in the art at the time Applicant made his invention prior to the original filing date of June 6, 1996.

Therefore Applicant respectfully requests the Examiner to reconsider the rejection of claim 18 and its depending claims 20 through 28.

<u>Examiner's Action, Paragraph 6</u>

The Examiner indicates that claims 30 through 32 appear to be allowable if they are rewritten to overcome the rejections under 35 U.S.C. 112 and to include all the limitations of the base claim and any intervening claims. Claim 30 is canceled and claim 33 has been added as a dependent claim.

Applicant further believes that the amendment to the claims overcomes the problem posed by the Examiner with respect to "method selection means" as set forth in claims 20, 21, 31 and 32.

<u>Summary</u>

Applicant has amended the claims in an attempt to more clearly define Applicant's invention. Applicant respectfully requests the Examiner to reconsider his objections and rejections and to allow claims 18, 20 through 28 and 31 through 33.

We respectfully request that this amendment be entered because we believe that it places the application in condition for allowance or in better condition for appeal.

Applicant(s): Allan Scherr
Serial No.: 10/036,547
Filed: December 31, 2001

(E30-050CON2) 96-031CON2

If there are any questions, we urge the Examiner to call us collect.

Respectfully Submitted,

GEORGE A. HERBSTER, Attorney,
Reg. No. 24,002
40 Beach Street
Manchester, MA 01944
(978) 526-8111

16